

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today  
(1) was not written for publication in a law journal and  
(2) is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte STANFORD R. OVSHINSKY

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Appeal No. 1997-3636  
Application No. 08/584,642

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ON BRIEF

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Before CALVERT, NASE, and GONZALES, Administrative Patent  
Judges.

CALVERT, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1 to  
21, all the claims in the application.<sup>1</sup>

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<sup>1</sup> In reviewing the application, we note that the  
specification describes drawings containing Figures 1-6D, but  
(continued...)

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The appealed claims are drawn to a method of fabricating a synthetically engineered material, and are reproduced in the appendix of appellant's brief.

The reference applied in the final rejection is:

Takagi et al. (Takagi)	4,354,909	Oct. 19,
1982		

Claims 1 to 21 stand finally rejected as anticipated by Takagi, under 35 U.S.C. § 102(a), or alternatively, as unpatentable over Takagi under 35 U.S.C. § 103(a).

35 U.S.C. § 102(a)

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<sup>1</sup>(...continued)  
no drawings showing a filing date of January 11, 1996 are present in the official file and the file wrapper label indicates that "0" sheets of drawings were filed with the application. On May 22, 2000, applicant submitted, by facsimile transmission, six (6) sheets of drawings containing Figures 1-6D. However, the drawings were not accompanied by evidence, e.g., a properly itemized postcard receipt, showing the original application papers were received in the Office accompanied by six (6) sheets of drawings. Appellant is reminded that any assertion that drawings were in fact deposited in the Office on January 11, 1996, is by way of petition accompanied by the appropriate petition fee. Upon return of the application to the jurisdiction of the examiner and absent a grantable petition, an amendment of the specification should be required by the examiner canceling all references to the omitted drawings. See Manual of Patent Examining Procedure (MPEP), § 601.01(g) (7th ed. 2000, Rev. 1).

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In paragraph 4 of the first Office action (Paper No. 2), to which the examiner refers in the answer (p. 2) for the reasons supporting the rejection, the examiner identifies Example 4 of Takagi as disclosing a process which, presumably, he considers to be anticipatory of that claimed by appellant.<sup>2</sup> Appellant argues that Takagi does not anticipate because it discloses using a vaporized starting material, while appellant employs a molten starting material; also, Takagi does not disclose treating a fluidic stream of molten material.

According to appellant (brief, p. 8):

Molten material implies a material in a liquid phase. This is clear from the definition of "molten" - "melted or liquefied by heat", Webster's New World Dictionary of the American Language, 1976. Hence, a molten material is clearly distinguishable from a vaporized material which implies a gas phase.

It is fundamental that a claim is not anticipated unless a prior art reference discloses every limitation of the claimed invention, either explicitly or inherently. In re Schreiber,

128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997).

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<sup>2</sup> The examiner states that "applicant's process is at the very least an obvious variation of the reference process" (Paper No. 2, p. 3).

In the present case, the limitations of interest are the first and second steps recited in claim 1 (emphasis added):

melting the first high melting temperature component to form a molten first component;  
providing a fluidic stream of said molten first component.

In attempting to read these steps on Takagi, we do not find, nor does the examiner point out, any express disclosure in Takagi of melting the "first component," i.e., the starting material in crucible 23 (chromium in Example 4).

Alternatively, the examiner has presented no reasons as to why it would be inherent that the Takagi starting material would be melted, but simply makes the conclusory statement that "In any event the Cr of the reference also melts prior to vaporization" (answer, p. 3). This statement is not persuasive because, with particular reference to Example 4 of Takagi, it does not appear to us that melting of the chromium would necessarily inherently occur, since the temperature of the crucible, given as 1650°C in Table 6, is below the melting point of chromium, 1857 ± 20°C.<sup>3</sup>

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<sup>3</sup> CRC Handbook of Chemistry & Physics, 64th Ed. (1984), p. B-10.

Moreover, Takagi discloses that the chromium is jetted from the crucible 23 as "a vapor of metallic chromium" (col. 4, line 50). Such a vapor does not constitute "a fluidic stream of said molten first component," as called for by claim 1, since, as argued by appellant, *supra*, molten material is material in a liquid phase, not in a vapor phase. Any doubt as to whether this claim limitation calls for the first component to be molten when in the stream is removed when the claim language is read in light of the disclosure,<sup>4</sup> in which the fluidic stream 7 of the melted first component from crucible 3 is described as being "liquid" (p. 10, penultimate line), in a "molten state" (p. 12, line 6), and "molten" (p. 12, last line; p. 13, line 7).

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<sup>4</sup> As stated in In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997):

the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification.

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We therefore will not sustain the rejection of claim 1 under § 102(a), nor, it follows, of claims 2 to 21 dependent thereon.

35 U.S.C § 103(a)

The examiner's position as to obviousness is expressed in the single sentence (answer, p. 3), "It would also be [sic: have been] obvious to one of ordinary skill in this art to melt [the chromium of Takagi] prior to vaporizing." The examiner cites no evidence in support of this statement, but even assuming the statement to be correct, there is no evidence or reasoning to explain why it would have been obvious to one of ordinary skill to disregard the teaching of Takagi and provide a stream of

molten material as required by the second step of claim 1, instead of the stream of vapor disclosed by Takagi.

Accordingly, the alternative rejection under § 103(a) will not be sustained.

Conclusion

The examiner's decision to reject claims 1 to 21 is reversed.

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REVERSED

IAN A. CALVERT	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
JEFFREY V. NASE	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
JOHN F. GONZALES	)	
Administrative Patent Judge	)	

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